ABSTRACT OF THE DISCLOSURE

A channel plan with a corresponding test plan are implemented in connection with a plurality of nodes that communicate signals. The channel plan has one or more predefined specifications for each of one or more signal channels on each of the nodes. The channel plan enables a monitoring system to, among other things, conduct automatic periodic test plans, comprising tests, on the nodes, based upon the predefined data specified in the channel plan. Each test plan prescribes measurement of at least one signal parameter, pertaining to one or more nodes as a whole and/or to one or more channels contained within the nodes. The monitoring system includes a spectrum analyzer, a switch enabling the spectrum analyzer to interface with the nodes, and a controller controlling the switch and the spectrum analyzer. The controller is configured to enable creation of and display the channel plan and test plan, based upon user inputs. Notably, the controller also implements user friendly warning interface logic. The warning interface logic generates a channel percent advisory indicator on the display device within a channel level interface component upon an occurrence of an advisory event in a channel associated therewith and generates a channel critical alarm indicator on the display device within a channel level interface component upon an occurrence of a critical event in a channel associated therewith.